

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A corneal implant comprising a hydrated membrane, said hydrated membrane comprising a mixture formed from a solution of a biological polymer and mixed with a polyacrylamide, wherein said solution has been dried to form a membrane and the membrane has been hydrated for use as a corneal implant.
2. (Original) The implant of claim 1, wherein the polyacrylamide is a poly (N-alkylacrylamide).
3. (Original) The implant of claim 1, wherein the polyacrylamide is poly (N-isopropylacrylamide).
4. (Previously presented) The implant of claim 1, wherein the biological polymer is selected from the group consisting of collagen, fibrin-fibrinogen, gelatin, elastin and mixtures thereof.
5. (Original) The implant of claim 4, wherein the collagen is selected from the group consisting of telocollagen and atelocollagen.
6. (Withdrawn) The implant of claim 4, wherein the collagen is a type I collagen.
7. (Withdrawn) The implant of claim 4, wherein the collagen is selected from the group consisting of recombinant collagen and collagen from a natural source.
8. (Original) The implant of claim 1, wherein the biological polymer and polyacrylamide are present in a ratio of about 0.2:1.0 (w/w) to about 1.0:0.2 (w/w) biological polymer:polyacrylamide.

9. (Original) The implant of claim 8, wherein the biological polymer and polyacrylamide are present in a ratio of about 0.3:1.0 (w/w) biological polymer:polyacrylamide.
10. (Original) The implant of claim 1, wherein said membrane further comprises a chemical crosslink.
11. (Currently amended) The implant of claim 10, wherein the crosslink is obtained by crosslinking with a crosslinking agent selected from the group consisting of (a) a carbodiimide crosslinking agent; (b) ~~an~~ a N-hydroxysuccinimide; and (c) both (a) and (b).
12. (Original) The implant of claim 11, wherein the carbodiimide crosslinking agent is 1-(3-dimethylaminopropyl)-3-ethyl carbodiimide.
13. (Original) The implant of claim 1, wherein the membrane has a thickness of about 20 μm to about 400 μm .
14. (Original) The implant of claim 13, wherein the membrane has a thickness of about 50 μm to about 100 μm .
15. (Original) The implant of claim 1, wherein said implant comprises a plurality of membranes, wherein at least one of said plurality of membranes comprises a biological polymer and a polyacrylamide.
16. (Canceled).
17. (Canceled).
18. (Canceled).
19. (Canceled).
20. (Canceled).
21. (Canceled).

22. (Canceled).

23. (Canceled).

24. (Canceled).

25. (Previously presented) A method of treating a condition characterized by a corneal defect, said method comprising applying the implant of claim 1 to a subject.

26. (Previously presented) The method of claim 25, wherein said subject is a human.

27. (Withdrawn) A commercial package comprising the implant of claim 1, together with instructions for treating a condition characterized by a corneal defect.

28. (Withdrawn) A commercial package comprising:

- a corneal implant comprising a dried membrane, said dried membrane comprising a mixture of a biological polymer and a polyacrylamide; and
- a rehydration solution for use prior to implantation of the dried membrane.

29. (Currently amended) A corneal implant comprising a membrane, said membrane comprising a mixture of a biological polymer and a polyacrylamide, wherein the membrane has of claim 1, wherein the membrane has an elastic modulus of less than about 10 MPa, a tensile strength at break of less than 6 MPa, an elongation at break of less than 80% and a tensile energy to break of less than 2 mJ.

30. (Previously presented) The implant of claim 1, wherein the membrane is hydrated with a solution comprising a drug, a bioactive compound, or a combination thereof.

31. (Currently amended) The implant of claim 30, wherein the bioactive compound is selected from the group consisting of proteins, glycoproteins, adhesive peptides, glycosaminoglycans, lipids, cytokines, chemokines and mixtures thereof.

32. (Previously presented) The implant of claim 1, wherein the mixture of the biological polymer and the polyacrylamide further comprise a drug, a bioactive compound, or a combination thereof.
33. (Currently amended) The implant of claim 32, wherein the bioactive compound is selected from the group consisting of proteins, glycoproteins, adhesive peptides, glycosaminoglycans, lipids, cytokines, chemokines and mixtures thereof.
34. (New) A corneal implant comprising a plurality of membranes, wherein at least one of said membranes is defined according to claim 1, and the plurality of membranes collectively have an elastic modulus of less than about 10 MPa, a tensile strength at break of less than 3 MPa, an elongation at break of less than 60% and a tensile energy to break of less than 2 mJ.
35. (New) The implant of claim 1, wherein the membrane-forming solution comprises a 0.30-0.35% solution of a biological polymer mixed with a 2-10% solution of a polyacrylamide.